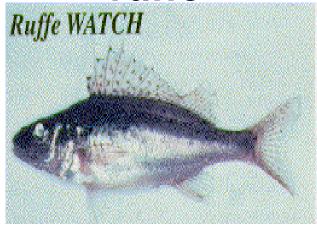


Non-Indigenous Species

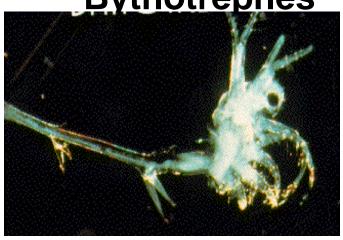
zebra mussel



ruffe



<u>Bythotrephes</u>



round goby





Non-Indigenous Species

Problems:

- Sea Lamprey Predation on lake trout
- Production of Lampreys in St. Marys River
- Colonization by zebra mussels
- Unknown effects from BC, ruffe, gobies
- New invasions to come Ballast water
- Cormorant

- Prevent rehabilitation of lake trout
- Potential invasions lead to unpredictability
- Prevent achievement of most FCOs
- Continued management of exotic species

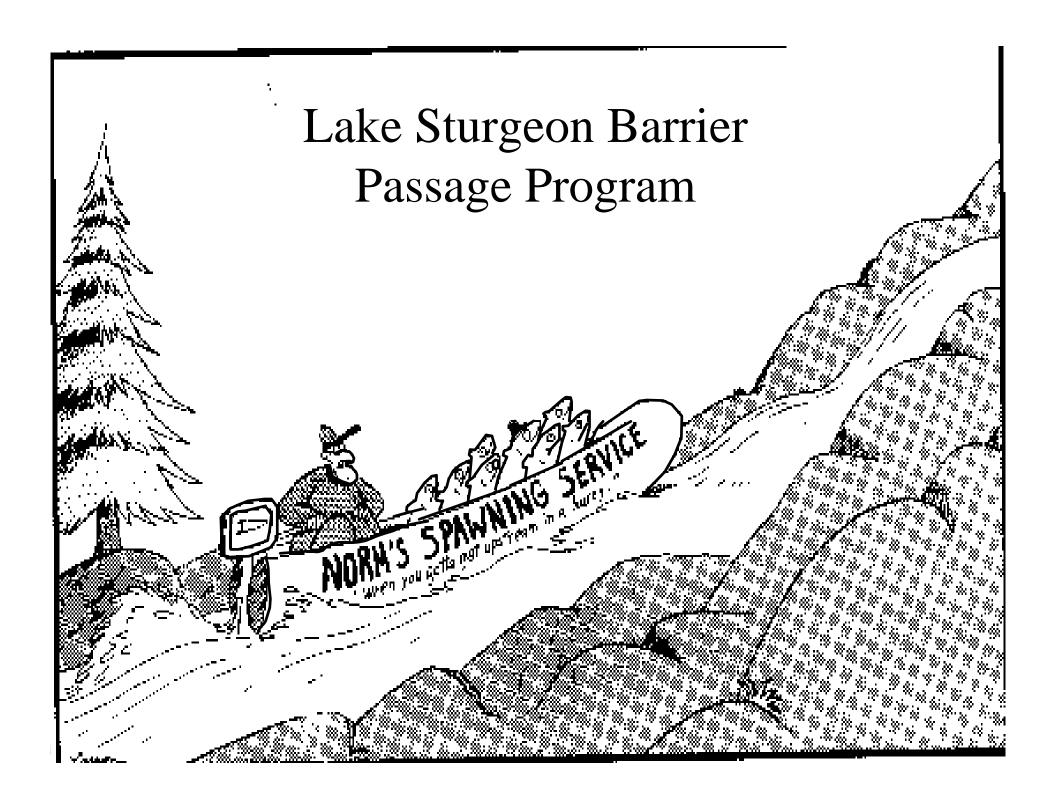
Reliance on Exotic Prey Base

Problem:

- Alewife and smelt dominate prey
- Bloater more abundant but not used

- Not using full potential of ecosytem
- Limit ability to meet Salmonine FCO
- Prevent achievment of Overall Objective
- Predation on eggs & larval of native fish

Barriers to Movement and Production of Fish in Tributaries to Lake Huron



Barrier Passage

Problem:

- Passage of lake sturgeon
- Passage of anadromous salmonids
- Passage of walleye
- Maintaining species diversity

Consequence:

•Prevent achievement of FCO for: walleye, sturgeon, anadromous salmonids

Barrier Passage

Problem:

- Removal of barriers
- Passage of anadromous salmonids

- Expand spawning habitat for sea lamprey
- Increase transport of critical contaminants

Exploitation

Problem:

- Overfishing on Lake Trout
- Overfishing on Northern Pike

- Limit recruitment
- Prevent rehabilitation of lake trout
- Prevent achievement of Salmonine FCO
- Prevent achievement of Esocid FCO

Complete Estimates of Harvest

Problem:

- No sport harvest most of Ontario
- Incomplete sport havest Michigan
- Under-reported commercial harvest

Consequence:

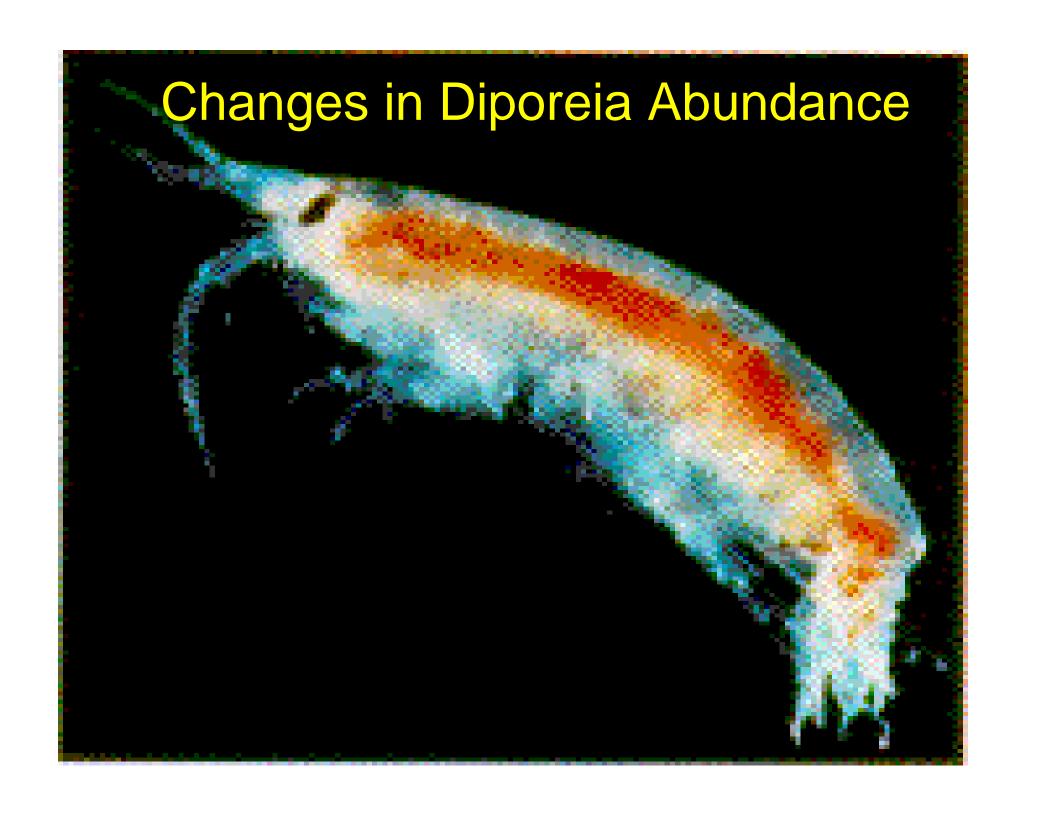
No evaluation of harvest based FCOs

Natural Reproduction of Chinook Salmon

Problem:

No estimate of natural reproduction

- Salmonine & prey objectives not met
- Overstocking
- Increased BKD
- Management problems



Changes in Diporeia Abundance

Problem:

- Unknown affect on benthic feeding fishes
- Unknown cascade effect on ecosytem

- •Limit ability to achieve Coregonine FCO?
- Ecosystem not in equilibrium

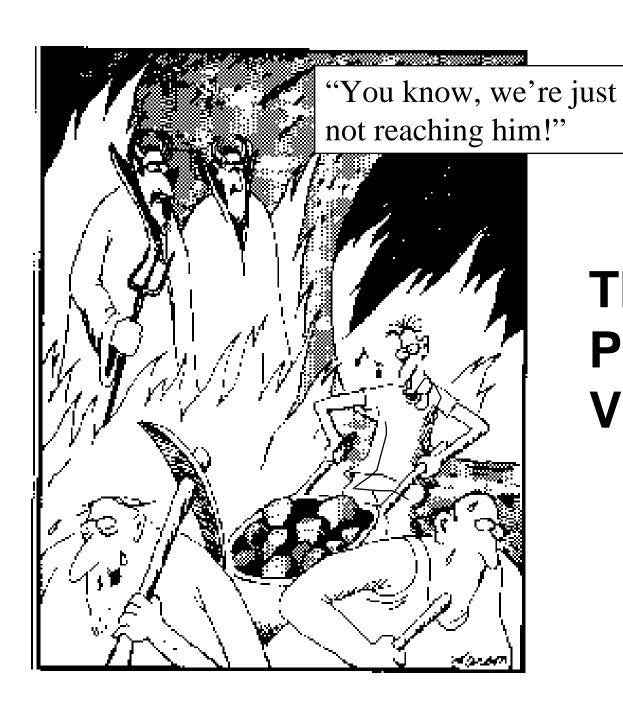


Cage Culture Operations

Problem:

- Expanding "inlake operations"
- Escapement

- Degredation of water quality
- Introduction unwanted species/strains
- Fish health concerns



The Positive View

Coregonine Objective

- •Exceeding Harvest Goal of 3.8 million kg
- •Lake whitefish abundance High/Stable
- Lake whitefish harvest above historical levels
- Lake herring abundance increasing
- •Round whitefish populations stable/normal?
- Round whitefish harvest at historical levels
- Bloater harvest at historical levels

Salmonine Objective

- •Diverse fish community of: lake trout, chinook, coho, rainbow, pink salmon
- •Lake trout dominant predator?
- •Limited lake trout rehabilitation in Parry Sound, Alpena, Owen Sound, 6-Fathom Bank
- •1836 Consent Decree promotes decrease in lake trout exploitation

Percid Objective

•Walleye dominant coolwater predator over its traditional range

Sturgeon Objective

•Maintaining populations in Canadian waters

Esocid

•Northern pike as prominent predator throughout its natural range

Channel Catfish

•Channel catfish as prominent predator throughout its natural range

Sea Lamprey Objective

- •Chemical treatment of St. Marys River 1998 & 1999
- •Application of Sterile-Male Technique St. Marys River
- Increased Trapping on St. Marys River

Natural Reproduction of Chinook

•Study started to estimate natural reproduction lakewide

Estimates of Harvest

•Expanded creel surveys in Michigan and Ontario

